

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Offic**Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

VANDY, T

ART UNIT

PAPER NUMBER

1754

DATE MAILED:

01/11/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

## Office Action Summary

Application No.	09-423,086	Applicant(s)	BLEY ET AL.
Examiner	VANOY	Group Art Unit	1754

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

### Status

- Responsive to communication(s) filed on \_\_\_\_\_
- This action is FINAL.
- Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

- Claim(s) 1 - 10 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- Claim(s) \_\_\_\_\_ is/are allowed.
- Claim(s) 1 - 10 is/are rejected.
- Claim(s) 1 - 10 is/are objected to.
- Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

### Application Papers

- Se the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- Th proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.
- Th drawing(s) filed on 1/28/2000 is/are objected to by the Examiner.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119 (a)-(d)

- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- All  Some\*  None of the CERTIFIED copies of the priority documents have been received.
- received in Application No. (Series Code/Serial Number) \_\_\_\_\_
- received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received:

### Attachment(s)

- Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_  Interview Summary, PTO-413
- Notice of Reference(s) Cited, PTO-892  Notice of Informal Patent Application, PTO-152
- Notice of Draftsperson's Patent Drawing Review, PTO-948  Other \_\_\_\_\_

## Office Action Summary

## DETAILED ACTION

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

- a) The references cited in the International Search Report have been considered and made of record on the PTO-892.

### ***Drawings***

- a) The features illustrated above the "Fan heater" and "Vaporizer" in figure 1 appear to be unclear and incomplete.

### ***Specification***

- ✓ a) The specification is objected to because it does not provide a "Brief Description of the Drawing".
- ✓ b) The specification is objected to because it does not define or describe features 1-4 illustrated in figure 1.
- ✓ c) The abstract is objected to because it does not give any examples of the "harmful gases"; or any examples the claimed additives for removing the harmful gases set forth in the Applicants' claims. Additionally, the abstract does not set forth *how* the harmful gases are removed from the pyrotechnic reaction gas mixtures. The invention appears

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to be directed to air-bag technology in view of the disclosure set forth on pg. 1 lines 5 et seq., but the abstract is silent with respect to air bags.

***Claim Objections***

- ✓a) In claims 1, 4 and 8, the European-style "characterized in that" phrases are objected to in as much as they are typical of European patent practice, but not U. S. patent practice. It is suggested to substitute the corresponding U. S. Jepson style phrase in lieu of the European-style "characterized in that" phrases present in these independent claims.
- ✓b) In claims 2, 3, 5, 6, 7, 9 and 10, the European-style "characterized in that" phrases are objected to in as much as they are typical of European patent practice, but not U. S. patent practice. It is suggested to substitute the corresponding U. S. phrase -- wherein-- in lieu of "characterized in that" present in these dependent claims.
- ✓c) Claims 1, 3, 4, 6, 8 and 10 are objected to because they do not use standard Markush language to recite the listed species.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as their invention.

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- ✓a) In claims 1, 4 and 8, the terms "metallocene derivatives" and "urea derivatives" renders the claims vague and indefinite in as much as it is not known what the metes and bounds are of "metallocene derivatives" and "urea derivatives". For example, molecular nitrogen, N<sub>2</sub> (a "urea derivative") is embraced in the scope of the claims, but is not expected to have much utility as an agent which reacts with and removes contaminants (such as carbon monoxide and nitrogen oxides) out of the gases.
- ✓b) In claims 3, 6 and 10, "preferably" renders these claims vague and indefinite: please see section 2173.05(d) in the MPEP (Rev. 1, Feb. 2000).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The person having ordinary skill in the art has the capability of understanding the scientific and engineering principles applicable to the claimed invention. The references in of record in this application reasonably reflect this level of skill.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. The Applicants are advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent 5,756,929 to Lundstrom et al.

The Lundstrom patent is directed to chemical components used in a composition for inflating automotive air bags (please see col. 1 lines 6-15). The gas within an automotive air bag is not seen to be distinct from "gas mixtures from pyrotechnic reactions" set forth in the Applicants' claims, consistent with the Applicants' description set forth on pg. 1 lines 5 et seq. in their specification. Among the chemical components contemplated by the Lundstrom patent are sulfur and metal sulfides, which are used as inorganic ballistic modifiers (please see col. 3 lines 41-45) and metallocenes and ferrocenes, which are used as organo-metallic ballistic modifiers (please see col. 3 lines 48-49).

The difference between the Applicants' claims and the Lundstrom patent is that the Applicants' claims set forth the utility of these air bag composition components for removing toxic gases out of the gas mixture, whereas the Lundstrom et al. patent discloses the utility of these components as ballistic modifiers, however it is submitted that this difference would have been obvious to one of ordinary skill in the art at the time the invention was made because the courts have already determined that the "mere recognition of latent properties in the prior art does not render nonobvious an otherwise known invention": *In re Wiseman* 596 F.2d 1019, 201 USPQ 658 (CCPA 1979) and section 2145(II) in the MPEP (Rev. 1, Feb. 2000). In this analogy, the "latent properties" are considered to be the usefulness of Lundstroms' sulfur, metal sulfides and metallocenes to remove toxic gases out of the gas in an inflated automotive air bag. The courts have also held that "The fact that appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious": *Ex parte Obiaya*, 227 USPQ 58,60 and section 2145(II) in the MPEP (Rev. 1, Feb. 2000).

It is submitted that not only the same claimed composition is obvious from the Lundstrom patent, but also the same claimed process for using this composition and the same claimed device for conducting said process are also submitted to be obvious from the Lundstrom patent, consistent with the decision reached in *In re Bozek* 163 USPQ 545, 549 (CCPA 1969) where it was determined that a conclusion of obviousness may

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be made from the common knowledge and common sense of the person having ordinary skill in the art without any specific hint from a particular reference.

The following references, which are indicative of the state of the art, are made of record:

U. S. Patent 5,429,691 disclosing a sodium azide free gas generating composition, which contain fuel and oxidizing agents which produce substantially non-toxic gases, and

U. S. Patent 4,547,235 disclosing a gas generating composition for air bags containing molybdenum disulfide and sulfur.

Any inquiry concerning this communication should be directed to Timothy C. Vanoy at telephone number 703-308-2540.

Timothy Vanoy/tv        
Timothy Vanoy

10 Jan. 2000      Patent Examiner

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